

Method.— Research and literature review on the website www.scopus.com and the PUBMED database in March 2012 with the following keywords: barefoot running. We retained 40 articles that focus on medical aspects of this practice. **Results.**— Many articles focus on the biomechanical and physiological aspects of barefoot running. Aspects of injury, studies are few and contradictory. The studies focus on long distance race, there are very few studies on the sprint barefoot.

The distal lower limb injuries in running are common with an overall prevalence of 30 to 60% in athletes. It is not possible to compare their prevalence in the runner without shoes for which no studies exist to date. Injuries specific to practice barefoot are yet to be described. One wonders about the long-term damage such as osteoarthritis. No studies about the sprained ankle in runners barefoot.

Discussion.— Theories to explain different injuries and even less in with or without shoes, will be discussed.

Conclusion.— Comparative and prospective studies on large cohorts are needed to see if running barefoot reduces or increases the risk of injury in the short or long term.

Further reading

Lieberman DE. What we can learn about running from barefoot running: an evolutionary medical perspective. *Exerc Sport Sci Rev* 2012.

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CO14-002-e

Tendinopathy in therapeutic failure. Effectiveness of the radial shock waves

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Keywords: Tendinopathy; Radial shock waves; Treatment

Purpose.— Study the effectiveness of the radial shock waves (RSW) in the treatment of the chronic tendinopathy.

Methods.— Retrospective study by questionnaire concerning the patients who were treated by RSW in sport medicine unit in the teaching hospital of Limoges between April, 2010 and June, 2011. The questionnaire was tested on a sample before the beginning of study. Healing was assessed with the score of Blazina. Contentment was assessed by a Lickert scale.

Results.— About 88 concerned patients, 71 answered, 12 were lost of view and five refused to participate. Eighty-two percent were sportsmen, the medium age was of 43 years. The main locations were: Achilles tendinopathy (30%), plantar fasciitis (30%), patellar tendinopathy (19%) and epicondylitis (13%). Symptoms have evolved for more than 6 months in 70% of cases (more than 2 years in 29%). The patients had 6.9 sessions of RSD on average. Eight months after RSW treatment, the score of Blazina belonged to 0 in 62% of the tendinopathy of Achilles, 38% of plantar fasciitis and 33% of patellar tendinopathy, 54% of the patients were satisfied or very satisfied with a 76% rate for the tendinopathy of Achilles. The length of evolution of the tendinopathy did not influence the efficacy of the treatment, nor treatment associates (50% had physical therapy). 59% of the patients took back sports at the same level and 22% at a lower level.

Conclusion.— RSW seem to be a good alternative for the treatment of tendinopathy in therapeutic failure.

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Cross-cultural adaptation, and validation of the Hand Function Sort (HFS) questionnaire in a French-speaking population of upper limb injury

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Keywords: HFS questionnaire; Upper limb; Injury

Objective.— HFS questionnaire is a pictorial task questionnaire with 62 questions upon upper limb's activities [1]. Cross-cultural adaptation in French (HFS-F) and verification of psychometrics properties: internal consistency (IC), convergent and divergent construct validity (CCV, DCV), test retest reliability.

Material and methods.— Cross cultural translation in agreement of international guidelines [2]. Administration of the HFS-F to French speaking patients hospitalized for an upper limb rehabilitation. For CCV we used the DASH questionnaire and the physical component of the SF36 questionnaire (SF36-PC), for DCV we used mental component of SF36 (SF36-MC) (Spearman's correlation coefficients). For test retest reliability (2 days) we used intraclass coefficient correlation: ICC. IC was assessed by Cronbach alpha test.

Results.— Transcultural validation was easy with a good agreement among the translators. HFS-F was administered to 86 patients, 13 questionnaires were unavailable. Analysis of 73 patients: 62 men, 11 women, mean age: 44 years. Regions injured: shoulder 43 cases, hand/wrist 23 cases, elbow eight cases, neurological one case. Test retest reliability: 17 of the 86 patients. Cronbach alpha (IC): 0.981.

Test re-test reliability: 0.95 [0.864–0.982 IC 95%].

CCV with DASH: –0.795 [–0.867 to –0.692 IC 95%].

CCV with SF36-PC: 0.386 [0.171–0.566 IC 95%].

DCV with SF36-MC: 0.409 [0.197–0.584 IC 95%].

Discussion.— HFS-F has a very good IC. HFS's IC is not known. The IC value is the same as French version of spine function sort which is an equivalent questionnaire for the spine [3]. Test retest reliability is very good, similar to the original version (0.92) [1]. CCV is good with the DASH according to Marshall (0.83) [4] and moderate (0.386) for SF36-PC a generic tool not specific of upper limb. DCV is also moderate with SF36-MC (0.409). Results need to be confirmed after inclusion of all patients.

In conclusion, HFS-F questionnaire have the same psychometric properties as the original version and can be used in patients with upper limb's injury.

References

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Validation of a predictive model for return to work after orthopaedic trauma

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Purpose.— The authors presented a predictive model with five variables (professional qualification, speaking French, upper arm injury, education and age) and the INTERMED score or the INTERMED 5-item social subscale score [1,2]. These models had an area under the receiver-operator-characteristics curve (ROC-Curve) of 0.72 (with total INTERMED score) and 0.73 (with the INTERMED social subscale score). One important step in the validation process before such a predictive tool can be used in clinical practice is the validation in a new sample. Therefore, the aim of this study was the validation of the same predictive model in a new sample of patients with the same inclusion and exclusion criteria as in the sample used for the development of the tool.

Patients and methods.— The cohort consisted of 656 consecutively included inpatients with orthopaedic trauma participating in a vocational rehabilitation program after a work-, traffic- or recreational activity-related injury. Two years

after discharge, a questionnaire regarding return to work (RTW) was sent. We calculated area under the ROC curve.

Results.— In 589 patients with a full data set 2 years after rehabilitation (no missing values), the area under the ROC curve was 0.765 (95% CI: 0.72–0.81) with the simplest model with only 10 variables.

Discussion.— This result of a validation analysis of a priori defined prediction tool shows that RTW can be quite well predicted with five questions plus the INTERMED social subscore. All these variables were readily available at admission. We conclude that this model is a useful tool in order to predict return to work after orthopaedic trauma. This tool may help to correctly allocate patients and resources to adapted therapeutic programs at the beginning of vocational rehabilitation, i.e. a standard vocational program for patients with high probability to RTW or a more tailored program for other patients.

References

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Tendinitis of the rotator cuff in Beninese teachers

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Keywords: Tendinitis; Rotator cuff; Primary school teachers; Benin

Background.— Tendinitis of the rotator cuff of the shoulder (TRCS) is a common disease that compromises in its evolution the use of the thoracic limb. Among the predisposing factors, overuse of the shoulder in sports and professional activities is crucial [1,2].

Objective.— To investigate the prevalence and treatment of TRCS in Beninese teachers.

Method.— Study cross-sectional aimed to be descriptive and analytic based on 345 primary school teachers in Cotonou, conducted from 10th May to 15th December 2010.

Results.— The average age of teachers was 38.17 years ranging from 25 to 55 years; 60.80% of teachers were male and 39.20% female with a sex ratio of 1.55. The prevalence of TRCS among teachers was 59.7%. Size of the teacher, seniority in the profession, distance ground edge and the width of the table, and the average daily hours spent writing on the board have significantly influenced the prevalence of TRCS in Beninese teachers ($P = 0.0000$). Diabetes and a history of trauma to the shoulder did not influence the prevalence of TRCS. Only 27, 20% of teachers have benefited from treatment with 15% for modern medicine, 0.5% traditional medicine 4.70% for Chinese medicine and 7% for combined treatment.

Conclusion.— Importance of the prevalence of TRCS in this profession requires taking preventive measures by influencing risk factors of occurrence of TRCS and patient education toward teachers.

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URAM scale for disability assessment in Dupuytren's disease: A comparative study of its properties

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Keywords: URAM scale; Disability; Dupuytren's disease

Aim.— The Unité rhumatologique des affections de la main (URAM) scale is the first and unique patient-reported functional outcomes measure developed and validated for Dupuytren's disease. Our aim is to test comparatively its content validity and its ease of implementation.

Method.— We conducted a study in patients affected by Dupuytren's disease with the Tubiana score grading the structural severity, the self-assessed disability on a visual analogue scale (VAS) (content validity) and the time of response (ease of implementation) as outcome criteria. We applied the URAM scale and compared its properties with those of the Cochin Hand Function Scale (CHFS) and the Disabilities of the Arm, Shoulder and Hand (DASH) questionnaire. Spearman's correlation was used for the content validity study. For the time response assessment, order of questionnaires application was randomly assigned for each patient. The time to file out each questionnaire was recorded in seconds for each patient.

Results.— A total of 83 patients with Dupuytren's disease, was prospectively included. Fifty-three patients were involved in the comparative content validity study and 30 in the time response assessment. The URAM scale showed a high convergence with the Tubiana scale ($r = 0.61$) and with the self-assessed disability on a VAS (0.67). For the CHFS, the convergence was moderate with the Tubiana scale (0.39) and high with the self-assessed disability (0.56). For the DASH questionnaire, there was no convergence with the Tubiana scale (0.22) and the convergence with the self-assessed disability was moderate (0.46). Convergence with the Tubiana and with the self-assessed disability appeared higher for the URAM scale than for the CHFS or for the DASH questionnaire. The time of response was shorter for the URAM scale (42 ± 20) than for the CHFS (71 ± 35) and for the DASH questionnaire (103 ± 59 , $P < 0.0001$).

Discussion.— The results reinforce the psychometric properties of the URAM scale in Dupuytren's disease. Furthermore, the time of response for assessing disability with the URAM scale was shorter than with the CHFS and the DASH questionnaire. The URAM scale should be therefore largely recommended in clinical practice and in clinical studies for assessing disability of patients with Dupuytren's disease.

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Karasek's classification and chronic pain patients: Characteristics of the "high strain" patients

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Keywords: Karasek; Work stress; Pain; Return to work process; Musculoskeletal disorders

Objective.— Many models of the stress in the work place have been described. The most used model is the Karasek. The main objective of this study was to evaluate the personal and environmental characteristics of patients undergoing a multidisciplinary program of rehabilitation in function of the presence of a strain work.